What is claimed is:

1. An information display device comprising:

an image display member which displays images; and

a prism having at least two reflecting surfaces arranged in facing each other, and a hologram surface formed of a reflection-type hologram, and at least one of the two reflecting surfaces arranged in facing each other is a light-beam-selective surface which selectively transmits or reflects light,

wherein an image light beam that corresponds to image information and that exits from the image display member is reflected between the two reflecting surfaces arranged in facing each other, and is diffractively reflected on the hologram surface, and then, after being transmitted through the light-beam-selective surface, is directed to an observer's pupil.

2. An information display device as claimed in claim 1,

wherein the hologram is a volume hologram.

3. An information display device as claimed in claim 1,

wherein the hologram is a phase hologram.

4. An information display device as claimed in claim 1,

wherein the hologram has optical power for projecting an image on an observer's pupil, while enlarging it.

5. An information display device as claimed in claim 1,

wherein the hologram has a diffractive reflection angle wider than a regular reflection

angle observed on the hologram surface.

6. An information display device as claimed in claim 1,

wherein the reflecting surfaces arranged in facing each other have an inclination opening toward the incident side of a prism of the image light beam.

7. An information display device as claimed in claim 1, further comprising

a deflection correction member for correcting deflection of external light that is transmitted through a prism.

8. An information display device as claimed in claim 7,

wherein the deflection correction member is attached to the prism and has surfaces on the same surfaces of the reflecting surfaces arranged in facing each other.

9. An information display device as claimed in claim 1,

wherein the reflecting surfaces arranged in facing each other are substantially parallel to each other.

10. An information display device as claimed in claim 1,

wherein reflection occurring between the reflecting surfaces arranged in facing each other is total reflection.

11. An information display device as claimed in claim 1,

wherein the hologram surface is plane.

12. An information display device as claimed in claim 1,

wherein at least one of the two reflecting surfaces arranged in facing each other is a curved surface.

13. An information display device comprising:

a first image display member for displaying a first image;

a first prism having at least two reflecting surfaces arranged in facing each other and another reflecting surface, and at least one of the two reflecting surfaces arranged in facing each other is a light-beam-selective surface which selectively transmits or reflects light;

a second image display member for displaying a second image; and

a second prism having the same construction as the first prism,

wherein an image light beam corresponding to the information of the first image exiting from the first image display member is reflected between the two reflecting surfaces of the first prism arranged in facing each other, and is reflected on another reflecting surface of the first prism, and then, after being transmitted through the light-beam-selective surface, is directed to an observer's pupil, on the other hand, an image light beam corresponding to the information of the second image exiting from the second image display member is reflected between the two reflecting surfaces of the second prism arranged in facing each other, and is reflected on another reflecting surface, and then is, after being transmitted through the light-beam-selective surface, directed to the same observer's pupil as the light beam of the first image.

14. An information display device as claimed in claim 13,

wherein the another reflecting surface has optical power for projecting an image on an observer's pupil, while enlarging it.

15. An information display device as claimed in claim 13,

wherein the another reflecting surface has an angle inclined to the incidental side of the prism of the image light beam.

16. An information display device as claimed in claim 13,

wherein the first image display member and the second image display member are connected to each other

17. An information display device as claimed in claim 13, further comprising:

a deflection correction member for correcting deflection of external light that is transmitted through the prism.

18. An information display device as claimed in claim 13,

wherein the another reflecting surface is a hologram surface formed of a reflection-type hologram.

19. An information display device as claimed in claim 18,

wherein the hologram is a volume hologram.

20. An information display device as claimed in claim 18,

wherein the hologram is a phase hologram.

21. An information display device as claimed in claim 18,

wherein the hologram has optical power for projecting an image on an observer's pupil, while enlarging it.

22. An information display device as claimed in claim 18,

wherein the hologram has a diffractive reflection angle wider than a regular reflection angle observed on the hologram surface.

23. An information display device as claimed in claim 13,

wherein the reflecting surfaces arranged in facing each other has an inclination opening toward the incident side of the prism of the image light beam.

24. An information display device as claimed in claim 13, further comprising

a deflection correction member for correcting deflection of external light that is transmitted through the prism.

25. An information display device as claimed in claim 13,

wherein the reflecting surfaces arranged in facing each other are substantially parallel to each other.

26. An information display device as claimed in claim 13,

wherein reflection occurring between the reflecting surfaces arranged in facing each other is total reflection.

27. An information display device as claimed in claim 13,

wherein at least one of the two reflecting surfaces arranged in facing each other is a curved surface.

28. An optical element comprising:

two reflecting surfaces arranged in facing each other, and at least one of the two reflecting surfaces is a light-beam-selective surface that selectively transmits or reflects light; and

a hologram surface formed of a reflection-type hologram,

wherein light entering the optical element is reflected on the two reflecting surfaces, and after being reflected on the hologram surface is transmitted through the light-beam-selective surface and then exits therefrom.

29. An optical element as claimed in claim 28,

wherein the third reflecting surface has positive optical power.

30. An optical element as claimed in claim 28,

wherein the optical element is a prism.

31. An optical element comprising:

two reflecting surfaces arranged in facing each other, and at least one of the two reflecting surfaces is a light-beam-selective surface that selectively transmits or reflects light; and

two hologram surface formed of a reflection-type holograms,

wherein light entering the optical element is reflected between the two reflecting surfaces, and is reflected on the one of two hologram surfaces, and then is transmitted through the light-beam-selective surface, on the other hand, light which is different from the light to be reflected on the one of two hologram surfaces entering the optical element is reflected between the two reflecting surfaces, and is reflected on the other two hologram surfaces, after then, is transmitted through the light beam-selective surface.